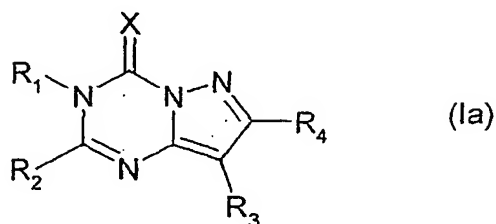


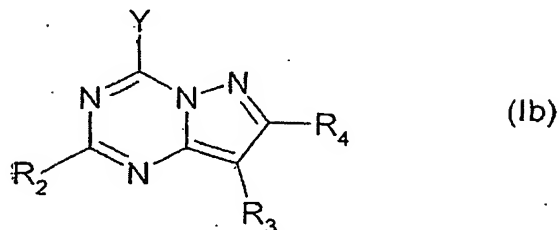
IN THE CLAIMS

Please cancel claims 1 to 20.

21. (new) A compound wherein said compound has a structure represented by formula (Ia),



or formula (Ib),



wherein R₁ represents:

- a hydrogen atom,
- or a (C₁-C₁₂)alkyl, (C₃-C₆)cycloalkyl, (C₆-C₁₈)aryl, (C₆-C₁₈)aryl(C₁-C₄)alkyl, (C₁-C₁₂)alkyl(C₆-C₁₈)aryl, (C₂-C₈)alkenyl, (C₂-C₈)alkynyl, (C₁-C₈)alkoxy or hydroxyl group,
- or an aromatic or nonaromatic (C₅-C₁₈)heterocycle containing from 1 to 3 hetero atoms and being attached directly to the nitrogen atom in the 1-position by means of a single bond or by means of a (C₁-C₆)alkyl, (C₂-C₆)alkenyl or (C₂-C₆)alkynyl group,
- or a group NR'R'' or NHCOR'R'', R' and R'', independently of one another, selected from the group consisting of a hydrogen atom, (C₁-C₆)alkyl, (C₃-C₆)cycloalkyl and (C₆-C₁₂)aryl groups, and aromatic or nonaromatic (C₅-C₁₂)heterocycles containing from 1 to 3 hetero atoms;

R₂ and R₃, which may be identical or different, each represents:

- a hydrogen atom,
- a halogen atom,
- a group: (C₁-C₆)alkoxy, (C₁-C₁₀)alkyl, (C₁-C₆)alkylCOOH, (C₁-C₆)alkylCOONa, perfluoro(C₁-C₆)alkyl, (C₃-C₆)cycloalkyl, acyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, (C₆-C₁₈)aryl, (C₆-C₁₈)arylCOOH, (C₆-C₁₈)arylCOONa, (C₆-C₁₈)aryl(C₁-C₄)alkyl, (C₁-C₆)alkyl(C₆-C₁₈)aryl, (C₅-C₁₈)heteroaryl, (C₁-C₆)alkyl(C₅-C₁₈)heteroaryl, (C₂-C₆)alkenyl(C₅-C₁₈)heteroaryl, (C₂-C₆)alkynyl(C₅-C₁₈)heteroaryl, CH(OH)(C₆-C₁₈)aryl, CO(C₆-C₁₈)aryl, (CH₂)_nCONH-(CH₂)_m-(C₆-C₁₈)aryl, (CH₂)_nSO₂NH-(CH₂)_m-

(C₆-C₁₈)aryl or (CH₂)_nCONH-CH(COOH)-(CH₂)_p-(C₆-C₁₈)aryl with n = 1 to 4, m = 0 to 3 and p = 0 to 2, in which one or more groups -CH₂- can be optionally replaced with -O-, -S-, -S(O)-, -S(O)₂- or -NH-, and can be optionally substituted with one or more radicals chosen from the following radicals: (C₁-C₆)alkyl, hydroxyl, oxo, (C₆-C₁₈)aryl(C₁-C₈)alkyl, (C₆-C₁₈)aryl, halogen, cyano, phosphate, alkylphosphate, nitro, alkoxy, (C₅-C₁₈)heteroaryl, (C₅-C₁₈)heteroaryl(C₁-C₆)alkyl, COOH, CONR_xR_y, NR_xCONHR_y, OR_x, SR_x, SOR_x, SO₂R_x, COR_x, COOR_x, NR_xSO₂R_y or NR_xR_y in which

- (i) R_x and R_y, independently of one another, are chosen from a hydrogen atom and the following groups: (C₁-C₆)alkyl, (C₃-C₆)cycloalkyl, (C₆-C₁₈)aryl, (C₆-C₁₈)aryl(C₁-C₄)alkyl, (C₁-C₁₂)alkyl(C₆-C₁₈)aryl, (C₃-C₆)cycloalkyl(C₆-C₁₂)aryl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₅-C₁₂)heteroaryl containing 1 to 3 hetero atoms, OR', NR'R'' and NHCOR'R'', R' and R'', independently of one another, being chosen from a hydrogen atom, (C₁-C₆)alkyl, (C₃-C₆)cycloalkyl and (C₆-C₁₂)aryl groups, and aromatic or nonaromatic (C₅-C₁₂)heterocycles containing 1 to 3 hetero atoms, or
- (ii) R_x and R_y together form a linear or branched hydrocarbon-based chain having from 2 to 6 carbon atoms, optionally containing one or more double bonds and/or optionally interrupted with an oxygen, sulfur or nitrogen atom, or a nitro, cyano, OR_x, SR_x, SOR_x, SO₂R_x, COR_x, CONR_xR_y, COOR_x, NR_xCOR_y, NR_xSO₂R_y or NR_xR_y group in which R_x and R_y are as defined above; and

the "aryl" groups of groups R₂ and R₃ can be replaced with aromatic or nonaromatic C₄-C₁₀ "heterocycles" containing from 1 to 3 hetero atoms;

R₄ represents:

a hydrogen atom, a (C₁-C₁₂)alkyl, (C₃-C₆)cycloalkyl, (C₆-C₁₈)aryl, (C₆-C₁₈)aryl(C₁-C₄)alkyl or (C₁-C₁₂)alkyl(C₆-C₁₈)aryl group, or an aromatic or nonaromatic (C₅-C₁₈)heterocycle containing 1 to 3 hetero atoms, in which one or more groups -CH₂- can be optionally replaced with -O-, -S-, -S(O)-, -S(O)₂- or -NH-, and can be optionally substituted with one or more radicals chosen from (C₁-C₆)alkyl, hydroxyl, oxo, halogen, cyano, nitro and alkoxy radicals, or a group NR'R'' or NHCOR'R'', R' and R'', independently of one another, being chosen from a hydrogen atom, a (C₁-C₆)alkyl, (C₃-C₆)cycloalkyl or (C₆-C₁₂)aryl group, and an aromatic or nonaromatic (C₅-C₁₂)heterocycle containing from 1 to 3 hetero atoms, it being possible for said formulae (Ia) and (Ib) to be, with respect to one another, tautomeric forms according to the definition of R₁, of X and of Y, with the proviso that:

when Y, in formula (Ib), represents OR_x, then R_x is necessarily different from aryl and aralkyl;

when simultaneously, in formula (Ib), Y represents NR_xR_y and R_x represents H, then R_y is necessarily different from aryl and aralkyl;

when Y, in formula (Ib), represents a group NR_xR_y in which at least one of the groups R_x or R_y is chosen from optionally substituted phenyl or pyridyl groups, then R_3 is different from a $(\text{C}_1\text{-C}_{10})$ alkyl, $(\text{C}_2\text{-C}_{10})$ alkenyl, $(\text{C}_2\text{-C}_{10})$ alkynyl, $(\text{C}_3\text{-C}_8)$ cycloalkyl and $(\text{C}_3\text{-C}_6)$ cycloalkyl $(\text{C}_1\text{-C}_4)$ alkyl group, it being possible for the latter to be optionally substituted;

when R_3 , in formula (Ib), represents an optionally substituted phenyl or pyridyl group, then Y is different from: $\text{NHCH}(\text{CH}_2\text{CH}_2\text{OMe})(\text{CH}_2\text{OMe})$, $\text{NHCH}(\text{Et})_2$, 2-ethylpiperid-1-yl, cyclobutylamino, $\text{N}(\text{Me})\text{CH}_2\text{CH}=\text{CH}_2$, $\text{N}(\text{Et})\text{CH}_2\text{CH}=\text{CH}_2$, $\text{N}(\text{Me})\text{CH}_2\text{cPr}$, $\text{N}(\text{Et})\text{CH}_2\text{cPr}$, $\text{N}(\text{Pr})\text{CH}_2\text{cPr}$, $\text{N}(\text{Me})\text{Pr}$, $\text{N}(\text{Me})\text{Et}$, $\text{N}(\text{Me})\text{Bu}$, $\text{N}(\text{Me})$ propargyl, $\text{N}(\text{Et})$ propargyl, $\text{NHCH}(\text{CH}_3)\text{CH}(\text{CH}_3)\text{CH}_3$, $\text{N}(\text{CH}_2\text{CH}_2\text{OMe})\text{CH}_2\text{CH}=\text{CH}_2$, $\text{N}(\text{CH}_2\text{CH}_2\text{OMe})\text{Me}$, $\text{N}(\text{CH}_2\text{CH}_2\text{OMe})\text{Et}$, $\text{N}(\text{CH}_2\text{CH}_2\text{OMe})\text{Pr}$, $\text{N}(\text{CH}_2\text{CH}_2\text{OMe})\text{CH}_2\text{cPr}$, $\text{NHCH}(\text{CH}_3)\text{CH}_2\text{CH}_3$, $\text{NHCH}(\text{cPr})_2$, $\text{N}(\text{CH}_2\text{CH}_2\text{OMe})_2$, $\text{N}(\text{Et})_2$ and cyclobutylamino;

when simultaneously, in formula (Ib), Y represents a methylamino, benzylamino, pyrrolidinyl, dimethylamino or 1-piperazinyl group and R_2 represents methyl or n-propyl, then R_3 is different from iodo and benzoyl;

when R_3 , in formula (Ib), represents a phenyl, naphthyl, pyridyl, pyrimidyl, triazinyl, furanyl, thienyl, benzothienyl, benzofuranyl, 2,3-dihydrobenzofuranyl, 2,3-dihydrobenzothienyl, indanyl, 1,2-benzopyranyl, 3,4-dihydro-1,2-benzopyranyl or tetralinyl group, then R_1 in formula (Ia) is different from H;

when simultaneously, in formula (Ib), R_3 represents a heterocycle directly attached at the 8-position of the pyrazolotriazine ring, R_2 represents alkyl or hydrogen, and Y represents a group NR_xR_y , R_x being chosen from a hydrogen atom or an alkyl group, then R_y is different from H or from an alkyl, alkanoyl, carbamoyl or N-alkylcarbamoyl group;

when NR_xR_y , in formula (Ib), represents an NH_2 group or a group $\text{NH}(\text{C}_1\text{-C}_4)$ alkyl, then R_4 is different from a hydrogen atom or a $\text{C}_1\text{-C}_4$ alkyl group;

when simultaneously, in formula (Ib), Y represents NHCH_3 , R_2 represents CH_3 and R_4 represents a hydrogen atom, then R_3 is different from benzyl, phenyl, naphthyl, (2-naphthyl)methyl, pentyl, benzoyl, propyne, penten-1-yl, 2-furyl, 2-thienyl, 2-chlorophenyl, 3-acetylphenyl, 3-nitrophenyl, 3-trifluoromethylphenyl, 2-benzo[b]furyl, 2-benzo[b]thienyl, 2-chlorobenzoyl, 2-methylaminobenzoyl, 4-methoxybenzoyl, 3-trifluoromethylbenzoyl, furfuryl, (3-furyl)methyl, (2-thienyl)methyl, 2-hydroxypropyl, iodo, nitro, acetylamino, benzoylamino and diethylaminocarbonyl;

when simultaneously, in formula (Ib), Y represents NHCH_3 , R_4 represents H and R_3 represents benzoyl or iodo, then R_2 is different from methyl, ethyl, n-propyl, n-butyl, thiomethyl, methoxymethyl, phenyl and 2-furyl;

when simultaneously, in formula (Ib), Y represents NHCH_3 , R_4 represents H and R_3 represents benzyl or 2-methoxybenzyl, then R_2 is different from methyl, n-propyl and trifluoromethyl;

when simultaneously, in formula (Ib), Y represents a methylamino, benzylamino, pyrrolidinyl, dimethylamino or 1-piperazinyl group and R_2 represents methyl or n-propyl, then R_3 is different from iodo and benzoyl;

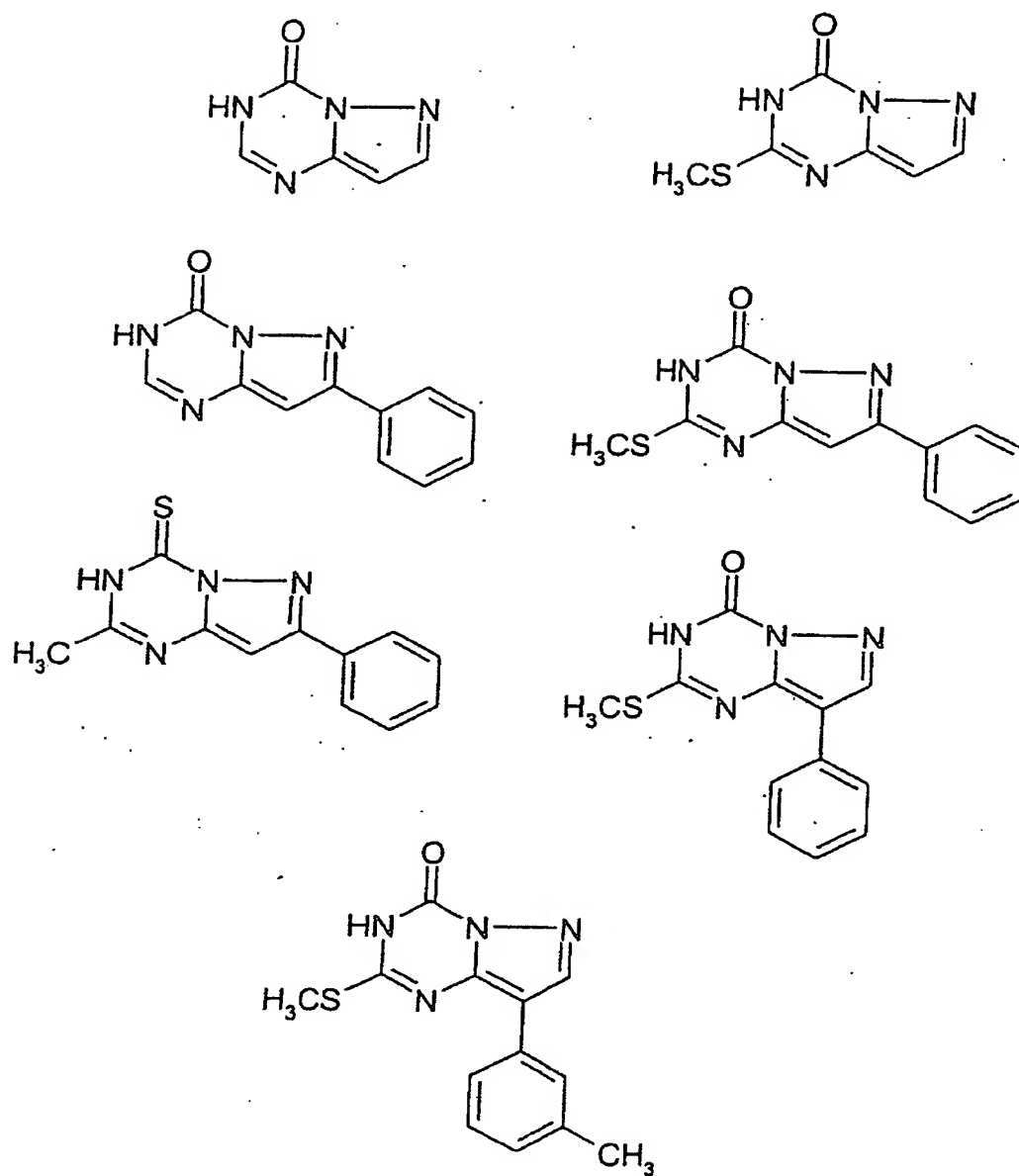
when R_4 , in formula (Ib), is a 2-furyl group, then R_3 is different from a hydrogen atom or from a $(\text{C}_1\text{-C}_4)$ alkyl group;

when simultaneously, in formulae (Ia) and (Ib), R_1 is a hydrogen atom with R_2 chosen from CH_3 , C_2H_5 or C_6H_5 , R_3 is chosen from H, C_6H_5 , (m) $\text{CH}_3\text{C}_6\text{H}_4$, CN, COOEt, Cl, I or Br, and R_4 represents H, C_6H_5 , (o) $\text{CH}_3\text{C}_6\text{H}_4$ or (p) $\text{CH}_3\text{OC}_6\text{H}_4$, then Y is different from H, OH, CH_3 , C_2H_5 , C_6H_5 , n- C_3H_7 , iso- C_3H_7 , SH, SCH_3 , $\text{NH}(n\text{-C}_4\text{H}_9)$ or $\text{N}(\text{C}_2\text{H}_5)_2$ and X is different from O;

when simultaneously, in formula (Ib), R_1 represents H, R_3 represents Br or H, and R_2 is chosen from H, CH_3 or SCH_3 with R_4 being C_6H_5 or H, then Y is different from SCH_3 , $\text{NH}(n\text{-Pr})$, $\text{NH}(n\text{-Bu})$, $\text{N}(\text{Et})_2$, piperidyl, OH, SH, O(i-Pr), CH_3 , SEt, OCH_3 and O(n-Pr);

when simultaneously, in formula (Ib), R_2 represents CF_3 , $\text{CH}_3\text{OCH}_2\text{-}$, Ph, Et, n-Pr or CH_3 , Y represents NHCH_3 , $\text{N}(\text{CH}_3)_2$ or $\text{N}(\text{CH}_3)\text{Ph}$, and $\text{R}_4 = \text{H}$ or CH_3 , then R_3 is different from $\beta\text{-D-glycero-pentofuran-3'-ulos-1'-yl}$, 2'-deoxy- $\beta\text{-D-ribofuranosyl}$, 2'-deoxy- $\beta\text{-D-xylofuranosyl}$, 2'-deoxy- $\beta\text{-D-ribofuranosyl-3',5'-bis(dibenzyl phosphate)}$, cyclic benzyl 2'-deoxy- $\beta\text{-D-xylofuranosyl-3',5'-phosphate}$, 2'-deoxy- $\beta\text{-D-ribofuranosyl-3',5'-bisphosphate}$ and cyclic 2'-deoxy- $\beta\text{-D-xylofuranosyl-3',5'-phosphate}$;

and said compound does not correspond to the following formulae:



22. (new) The compound of claim 21 wherein:
 R_1 represents a hydrogen atom or a (C_1-C_{12}) alkyl group;
 R_2 represents a hydrogen or sulfur atom, or a (C_1-C_6) alkyl group, or a trifluoro (C_1-C_6) alkyl group, or an amino group, or a group SR_x where R_x is as defined above;
 R_3 represents a hydrogen atom, or a halogen atom, or a nitro, (C_1-C_6) alkyl, trifluoro (C_1-C_6) alkyl, acyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, (C_6-C_{18}) aryl, $(CH_2)_nCONH-(CH_2)_m$ aryl, $(CH_2)_nSO_2NH-(CH_2)_m$ aryl or $(CH_2)_nCONH-CH(COOH)-(CH_2)_p$ aryl group with $n = 1$ to 4, $m = 0$ to 3 and $p = 0$ to 2, or a group $NR'R''$ or $NHCOR'R''$, R' and R'' , independently of one another, being chosen from a

hydrogen atom, (C₁-C₆)alkyl, (C₃-C₆)cycloalkyl and (C₆-C₁₂)aryl groups, and aromatic or nonaromatic (C₅-C₁₂)heterocycles containing 1 to 3 hetero atoms;

R₄ represents a hydrogen atom;

X represents an oxygen or sulfur atom; and

Y represents either a halogen atom, or a (C₁-C₆)alkyl, (C₂-C₆)alkynyl, phenyl, OR_x, SR_x or NR_xR_y group.

23. (new) The compound of claim 21 wherein:

R₁ represents a hydrogen atom or a methyl group;

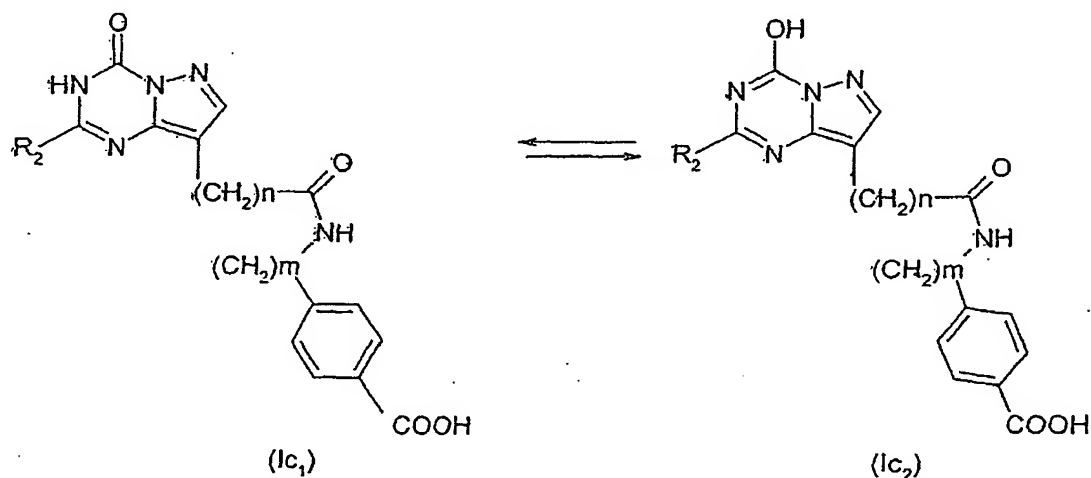
R₂ represents a hydrogen or sulfur atom, or a methyl, propyl, trifluoromethyl, amino or thiomethyl group;

R₃ represents an iodine atom, or an amino, nitro, acylamino, benzyl, 2-methoxybenzyl, furfuryl, 3-furylmethyl, 2-thienylmethyl, 3-thienylmethyl, 2-pyridylmethyl, 2-chlorobenzoyl-CH₂CH₂COOH, CH₂CH₂COONa, C₆H₄COOH, C₆H₄COONa, C₆H₄COOC₂H₅, ethyl benzoate, sodium benzoate, CH₂=CHCOOC₂H₅, propyn-1-yl, (CH₂)₂CONH-C₆H₄COONa, (CH₂)CONH-(CH₂)₂-indole, (CH₂)₂CONH-CH(COOH)(CH₂)indole, (CH₂)CONH-(CH₂)₂C₆H₄OH or (CH₂)₂CONH-CH₂C₆H₄OH group;

X represents an oxygen atom; and

Y represents an OH, SH, N-methyl-N-phenylamino (NPhCH₃), N-methyl-N-(4-acylamino-phenyl)amino or triazole group.

24. (new) The compound of claim 21 wherein said compound has a structure represented formulae (Ic₁) and (Ic₂)



or its prodrugs, its bioprecursors and its pharmaceutically acceptable base or acid addition salts, wherein n = 1 to 4, and m = 0 to 2.

25. (new) The compound of claim 24 wherein R₂ represents a hydrogen atom, n = 1 and m = 0.

26. (new) Sodium 4-[[1-(oxo)-3-(4-oxopyrazolo[1,5-a]-

1,3,5-triazin-8-yl)propyl]amino]benzoate.

27. (new) The compound of claim 21 wherein Y represents a methylamino or cyclopropylamino group;

R₂ represents an iodine or sulfur atom, or a methyl, propyl, cyclopropyl, perfluoroethyl, perfluoropropyl, trifluoromethyl, allyl, trifluoromethylvinyl, vinyl, 1-propynyl or ethynyl group;

R₃ is selected from the group consisting of an iodine atom, and a benzyl, 2-methoxybenzyl, 2-fluorobenzyl, 2-bromobenzoyl, furfuryl, 2-furylcarbonyl, 3-furylmethyl, 2-thienylmethyl, 3-thienylmethyl, 2-pyridylmethyl, 2-chlorobenzoyl, cyclopentyl or cyclohexyl group; and

R₄ represents a hydrogen or fluorine atom.

28. (new) The compound of claim 21 wherein X represents an oxygen atom;

Y represents an OH or NH₂ group;

R₁ represents a hydrogen atom or optionally an alkyl group having from 1 to 3 carbons;

R₃ represents a hydrogen atom or a substituted benzyl group; and

R₄ represents a hydrogen or fluorine atom.

29. (new) The compound of claim 21 wherein said compound is selected from the group consisting of:

8-Iodo-4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine;
8-Iodo-4-[N-methyl-N-(4-nitrophenyl)amino]pyrazolo[1,5-a]-1,3,5-triazine;

8-Iodo-4-(triazol-4-yl)pyrazolo[1,5-a]-1,3,5-triazine;

8-Acetamido-2-methylpyrazolo[1,5-a]-1,3,5-triazin-4-one;

Methyl 4-[(hydroxy)[4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazin-8-yl]methyl]benzoate;

8-[(2-Chlorophenyl)(hydroxy)methyl]-4-(N-methyl-N-phenylamino)-2-n-propylpyrazolo[1,5-a]-1,3,5-triazine;

8-(2-Chlorophenyl)-4-(N-methyl-N-phenylamino)-2-n-propylpyrazolo[1,5-a]-1,3,5-triazine;

8-(2-Chlorophenyl)-4-(N-methylamino)-2-n-propylpyrazolo[1,5-a]-1,3,5-triazine;

Ethyl 3-[4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazin-8-yl]acrylate;

Ethyl 3-[4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazin-8-yl]propionate;

3-[4-(N-Methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazin-8-yl]propionic acid;

Methyl 4-[[1-oxo-3-[4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazin-8-yl]propyl]amino]benzoate;

4-(Cyclopropylamino)-8-(2-fluorobenzoyl)-2-methylpyrazolo[1,5-a]-1,3,5-triazine;

Ethyl 4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine-

8-carboxylate;
tert-Butyl 3-[4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-*a*]-1,3,5-triazin-8-yl]acrylate;
tert-Butyl 3-[4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-*a*]-1,3,5-triazin-8-yl]propionate;
4-(*N*-Methyl-*N*-phenylamino)-8-phenylpyrazolo[1,5-*a*]-1,3,5-triazine;
4-(*N*-Methyl-*N*-phenylamino)-8-(β -D-glycero-pentofuran-3'-ulos-1'-yl)pyrazolo[1,5-*a*]-1,3,5-triazine;
8-[(3-Furyl)(hydroxy)methyl]-4-(*N*-methyl-*N*-phenylamino)-2-*n*-propylpyrazolo[1,5-*a*]-1,3,5-triazine;
8-(3-Furylmethyl)-2-*n*-propyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
2-Trifluoromethyl-8-(3-furylmethyl)-4-(cyclopropylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
2-Thiomethyl-8-(3-furylmethyl)-4-(*N*-methylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
8-(3-Furylmethyl)-4-(*N*-methylamino)-2-*n*-propylpyrazolo[1,5-*a*]-1,3,5-triazine;
2-Trifluoromethyl-8-cyclopentyl-4-(*N*-methylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
2-Pentafluoroethyl-8-(2-methoxybenzyl)-4-(*N*-methylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
4-(*N*-Cyclopropylamino)-2-trifluoromethyl-8-(2-methoxybenzyl)pyrazolo[1,5-*a*]-1,3,5-triazine;
4-(*N*-Cyclopropylamino)-8-(2-methoxybenzyl)-2-*n*-propylpyrazolo[1,5-*a*]-1,3,5-triazine;
2-Iodo-8-(2-methoxybenzyl)-4-(*N*-methylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
2-Bromo-8-(2-methoxybenzyl)-4-(*N*-methylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
8-[(Hydroxy)(2-thienyl)methyl]-4-(*N*-methyl-*N*-phenylamino)-2-*n*-propylpyrazolo[1,5-*a*]-1,3,5-triazine;
8-(2-Chlorobenzoyl)-2-trifluoromethyl-4-(*N*-methylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
8-(2-Chlorobenzoyl)-2-pentafluoroethyl-4-(*N*-methylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
8-(2-Chlorobenzoyl)-2-trifluoromethyl-4-(*N*-cyclopropylamino)pyrazolo[1,5-*a*]-1,3,5-triazine;
4-(*N*-Methyl-*N*-phenylamino)-2-*n*-propyl-8-(2-thienylmethyl)pyrazolo[1,5-*a*]-1,3,5-triazine;
4-(*N*-Methylamino)-2-*n*-propyl-8-[(2-thienyl)methyl]pyrazolo[1,5-*a*]-1,3,5-triazine;
4-(*N*-Methylamino)-2-trifluoromethyl-8-[(2-thienyl)methyl]pyrazolo[1,5-*a*]-1,3,5-triazine;
4-(*N*-Cyclopropylamino)-2-trifluoromethyl-8-[(2-thienyl)methyl]pyrazolo[1,5-*a*]-1,3,5-triazine;
N-[2-(3,4-Dihydroxyphenyl)ethyl]-3-[4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-*a*]-1,3,5-triazin-8-yl]propionamide;

3-[4-(*N*-Methyl-*N*-phenylamino)pyrazolo[1,5-*a*]-1,3,5-triazin-8-yl]-*N*-[3-(2-oxopyrrolidin-1-yl)propyl]propionamide;
N-[2-Hydroxy-2-(3,4-dihydroxyphenyl)ethyl]-3-[4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-*a*]-1,3,5-triazin-8-yl]propionamide;
3-(4-Oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propionic acid;
Ethyl 3-[4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl]acrylate;
Sodium 4-[(hydroxy)[4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)methyl]benzoate;
Sodium 4-[[1-(oxo)-4-3-(oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propyl]amino]benzoate;
Sodium 4-[2-(4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)-ethylsulfonylamino]benzoate;
Sodium 4-[1-oxo-3-(2-amino-4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propylamino]benzoate;
Sodium 4-[1-oxo-3-(2-*n*-propyl-4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propylamino]benzoate;
Sodium 4-[1-oxo-3-(2-trifluoromethyl-4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propylamino]benzoate;
N-[2-(Indol-3-yl)ethyl]-3-(4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propanamide;
N-[2-(Indol-3-yl)ethyl]-3-(2-amino-4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propanamide;
N-[1-(Carboxyl)-2-(indol-3-yl)ethyl]-3-(4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propanamide;
N-[2-(4-Hydroxyphenyl)ethyl]-3-(4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propanamide;
N-[2-(4-Hydroxyphenyl)ethyl]-3-(2-amino-4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propanamide;
N-[2-(4-Hydroxyphenyl)ethyl]-3-(2-trifluoromethyl-4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propanamide;
N-[1-(Carboxyl)-2-(4-hydroxyphenyl)ethyl]-3-(4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propanamide;
4-(*N*-Methyl-*N*-phenylamino)pyrazolo[1,5-*a*]-1,3,5-triazine.
2-(4-Methylbenzyl)-8-(2-oxohept-3-yl)pyrazolo[1,5-*a*]-1,3,5-triazin-4-one;
8-(2-Hydroxy-6-phenylhex-3-yl)-2-(3,4-dimethoxybenzyl)pyrazolo[1,5-*a*]-1,3,5-triazin-4-one;
Erythro-8-(2-hydroxy-3-nonyl)pyrazolo[1,5-*a*]-1,3,5-triazin-4-one;
Erythro-4-amino-8-(2-hydroxy-3-nonyl)pyrazolo[1,5-*a*]-1,3,5-triazine;
Sodium 4-[[3-(1-methyl-4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)-1-(oxo)propyl]amino]benzoate;
8-Benzoyl-2-cyclopropylpyrazolo[1,5-*a*]-1,3,5-triazin-4-one;
N-[2-(3,4-Dihydroxyphenyl)ethyl]-3-(4-oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl)propionamide;
3-[4-Oxopyrazolo[1,5-*a*]-1,3,5-triazin-8-yl]-*N*-[3-(2-oxopyrrolidin-1-yl)propyl]propionamide;
N-[2-Hydroxy-2-(3,4-dihydroxyphenyl)ethyl]-3-[4-oxopyrazolo-

[1,5-a]-1,3,5-triazin-8-yl]propionamide;
8-(2'-Deoxy- β -D-ribofuranosyl)-4-(N-methyl-N-phenyl-amino)pyrazolo[1,5-a]-1,3,5-triazine;
8-(2'-Deoxy- β -D-ribofuranosyl)-4-[N-methyl-N-(4-nitro-phenylamino)]pyrazolo[1,5-a]-1,3,5-triazine;
8-(2'-Deoxy- β -D-xylofuranosyl)-4-(N-methyl-N-phenyl-amino)pyrazolo[1,5-a]-1,3,5-triazine;
8-(2'-Deoxy- β -D-xylofuranosyl)-4-[N-methyl-N-(4-nitro-phenylamino)]pyrazolo[1,5-a]-1,3,5-triazine;
4-Amino-8-(2'-deoxy- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazine;
8-(2'-Deoxy- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazin-4-one;
4-Amino-8-(2'-deoxy- β -D-xylofuranosyl)pyrazolo[1,5-a]-1,3,5-triazine;
8-(2'-Deoxy- β -D-xylofuranosyl)pyrazolo[1,5-a]-1,3,5-triazin-4-one;
4-Amino-2-fluoro-8-[trans-2,trans-3-dihydroxy-4-(hydroxymethyl)cyclopent-4-enyl]pyrazolo[1,5-a]-1,3,5-triazine;
4-Amino-8-[trans-2,trans-3-dihydroxy-4-(hydroxymethyl)cyclopent-4-enyl]pyrazolo[1,5-a]-1,3,5-triazine;
2-Fluoro-8-[trans-2,trans-3-dihydroxy-4-(hydroxymethyl)cyclopent-4-enyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
8-[trans-2,trans-3-dihydroxy-4-(hydroxymethyl)cyclopent-4-enyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
(1S,4R)-2-Amino-4-(cyclopropylamino)-8-[4-(hydroxymethyl)cyclopent-2-en-1-yl]pyrazolo[1,5-a]-1,3,5-triazine;
cis-2-Amino-4-(cyclopropylamino)-8-[4-(hydroxymethyl)cyclopent-2-en-1-yl]pyrazolo[1,5-a]-1,3,5-triazine;
4-Amino-7-chloro-8-(β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazine-3',5'-cyclophosphate;
bis-(2,2,2-Trifluoroethyl [2-[2-amino-4-(4-methoxy-phenylthio)pyrazolo[1,5-a]-1,3,5-triazin-8-yl]ethoxy]-methylphosphonate;
4-Amino-8-(3'-deoxy- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazine;
8-(3'-Deoxy- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazin-4-one;
2-Amino-8-(3'-deoxy- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazin-4-one;
4-Amino-2-chloro-8-(2'-deoxy- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazine;
cis-2-Amino-4-(cyclopropylamino)-8-[2-(hydroxymethyl)-1,3-dioxolan-4-yl]pyrazolo[1,5-a]-1,3,5-triazine;
4-Amino-8-(2',3'-dideoxy-2'-fluoro- β -D-ribofuranosyl)-pyrazolo[1,5-a]-1,3,5-triazine;
4-Amino-8-(2',3'-dideoxy-2'-fluoroarabinosyl)pyrazolo[1,5-a]-

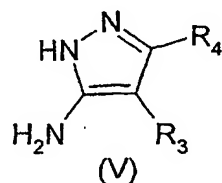
1,3,5-triazine;
2-Amino-8-[4-acetyloxy-3-(acetyloxymethyl)butyl]pyrazolo[1,5-a]-1,3,5-triazine;
4-Amino-2-chloro-8-(2'-deoxy-2'-fluoro- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazine;
4-Amino-8-(2'-deoxy-2'-fluoro- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazine;
8-(2'-Deoxy-2'-fluoro- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazin-4-one;
S-[[4-Amino-8-(5'-deoxy- β -D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazine]-5'-yl]methionine (bioisostere of S-adenosylmethionine);
2-Amino-4-[(4-bromo-2-thienyl)methoxy]pyrazolo[1,5-a]-1,3,5-triazine;
(R)-4-Benzylamino-2-[1-(hydroxymethyl)propylamino]-8-isopropylpyrazolo[1,5-a]-1,3,5-triazine;
(S)-4-Benzylamino-2-[1-(hydroxymethyl)propylamino]-8-isopropylpyrazolo[1,5-a]-1,3,5-triazine;
2'-(Butyryl)-4-(N-butyrylamino)-8-(β -D-ribofuranosyl)-pyrazolo[1,5-a]-1,3,5-triazine-3',5'-cyclophosphate;
cis-2,4-Diamino-8-[2-(hydroxymethyl)-1,3-dioxolan-4-yl]pyrazolo[1,5-a]-1,3,5-triazine;
cis-2-Amino-8-[2-(hydroxymethyl)-1,3-dioxolan-4-yl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
cis-8-[2-(Hydroxymethyl)-1,3-dioxolan-4-yl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
cis-4-Amino-8-[2-(hydroxymethyl)-1,3-dioxolan-4-yl]pyrazolo[1,5-a]-1,3,5-triazine;
(1'S,2'R)-2-Amino-8-[[1',2'-bis(hydroxymethyl)cycloprop-1'-yl]methyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
(1'S,2'R)-8-[[1',2'-bis(Hydroxymethyl)cycloprop-1'-yl]methyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
(1'S,2'R)-4-Amino-8-[[1',2'-bis(hydroxymethyl)cycloprop-1'-yl]methyl]pyrazolo[1,5-a]-1,3,5-triazine;
2-Amino-8-[(2-hydroxyethoxy)methyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
8-[(2-Hydroxyethoxy)methyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
4-Amino-8-[(2-hydroxyethoxy)methyl]pyrazolo[1,5-a]-1,3,5-triazine;
2-Amino-8-[4-hydroxy-3-(hydroxymethyl)butyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
4-Amino-8-[4-hydroxy-3-(hydroxymethyl)butyl]pyrazolo[1,5-a]-1,3,5-triazine;
8-[4-Hydroxy-3-(hydroxymethyl)butyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
2-Amino-8-[2-hydroxy-1-(hydroxymethyl)ethoxymethyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
8-[2-Hydroxy-1-(hydroxymethyl)ethoxymethyl]pyrazolo[1,5-a]-

1,3,5-triazin-4-one;
 4-Amino-8-[2-hydroxy-1-(hydroxymethyl)ethoxymethyl]pyrazolo[1,5-a]-1,3,5-triazine;
 2-[(2-Amino-4-oxopyrazolo[1,5-a]-1,3,5-triazin-8-yl)methoxy]-ethyl valinate;
 8-(2',3'-Dideoxy-β-D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazin-4-one;
 8-(2',3'-Dideoxy-2',2'-difluoro-β-D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazin-4-one;
 8-(2'-Deoxy-β-D-ribofuranosyl)pyrazolo[1,5-a]-1,3,5-triazin-4-one;
 bis(Pivaloyloxymethyl) [2-(4-aminopyrazolo[1,5-a]-1,3,5-triazin-8-yl)ethoxy]methylphosphonate;
 Sodium [2-(4-aminopyrazolo[1,5-a]-1,3,5-triazin-8-yl)-ethoxy]methylphosphonate;
 4-Amino-8-[2-[[bis(pivaloyloxymethyl)phosphonyl]-methoxy]ethyl]pyrazolo[1,5-a]-1,3,5-triazine;
 cis-8-[2-(Hydroxymethyl)-1,3-oxathiolan-5-yl]pyrazolo[1,5-a]-1,3,5-triazin-4-one;
 cis-8-[2-(Hydroxymethyl)-1,3-oxathiolan-5-yl]-2-oxopyrazolo[1,5-a]-1,3,5-triazin-4-one;
 cis-8-[2-(Hydroxymethyl)-1,3-oxathiolan-5-yl]-2-thioxo-pyrazolo[1,5-a]-1,3,5-triazin-4-one;
 cis-2-Amino-8-[2-(hydroxymethyl)-1,3-oxathiolan-5-yl]-pyrazolo[1,5-a]-1,3,5-triazin-4-one;
 cis-4-Amino-8-[2-(hydroxymethyl)-1,3-oxathiolan-5-yl]-pyrazolo[1,5-a]-1,3,5-triazine;
 8-[[3R,4R]-3-Hydroxy-4-(hydroxymethyl)pyrrolidin-1-yl]-methyl]pyrazolo[1,5-a]-1,3,5-triazin-4-one; and
 4-Amino-8-[[3R,4R]-3-hydroxy-4-(hydroxymethyl)pyrrolidin-1-yl]methyl]pyrazolo[1,5-a]-1,3,5-triazine.

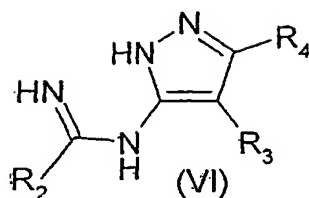
30. (new) A pharmaceutical composition comprising the compound of claim 21 or 29, wherein said compound is combined with a pharmaceutically acceptable vehicle or excipient.

31. (new) A method for preparing the compound of claim 21 in which $R_1=H$, comprising:

a) reacting a compound of general formula (V)



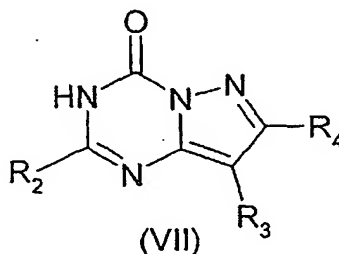
in which R_3 and R_4 are as defined in claim 3, with a compound a group of formula $R_2C(GP)=NH$, in which R_2 is as defined in claim 3 and GP represents a leaving group, so as to obtain a compound of formula (VI)



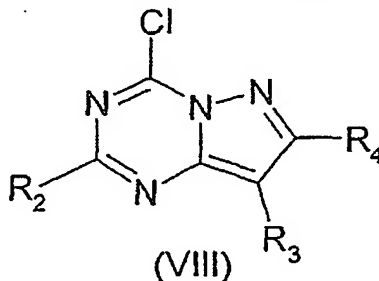
and

b) reacting the compound of formula (VI) with a dielectrophile so as to obtain a compound of formula (Ia) or (Ib).

32. (new) The method of claim 31 wherein during step a), the compound of formula (V) is reacted with an imidate of formula $R_2(OMe)=NH.HCl$ and during step b), the compound obtained in a) is reacted with an ethyl carbonate so as to obtain a compound of formula (VII)



which can optionally be reacted with phosphorus oxychloride and a tertiary amine so as to obtain a compound of formula (VIII)



which can optionally be reacted with an amine of formula HNR_xR_y so as to obtain a compound of formula (Ib) in which $Y=NR_xR_y$.

33. (new) The method of claim 32 wherein Y represents an *N*-methyl-*N*-phenylamino group, and the compound (Ib) is treated with a hydroxide so as to obtain a compound of formula (Ib) in which $Y=OH$.

34. (new) A medicinal product intended to increase the secretion of one or more neurotrophic factors for treating or preventing pathologies involving neuronal degeneration comprising:

8-(1-hydroxypropyl)-2-methyl-4-(*N*-methyl-*N*-phenyl-

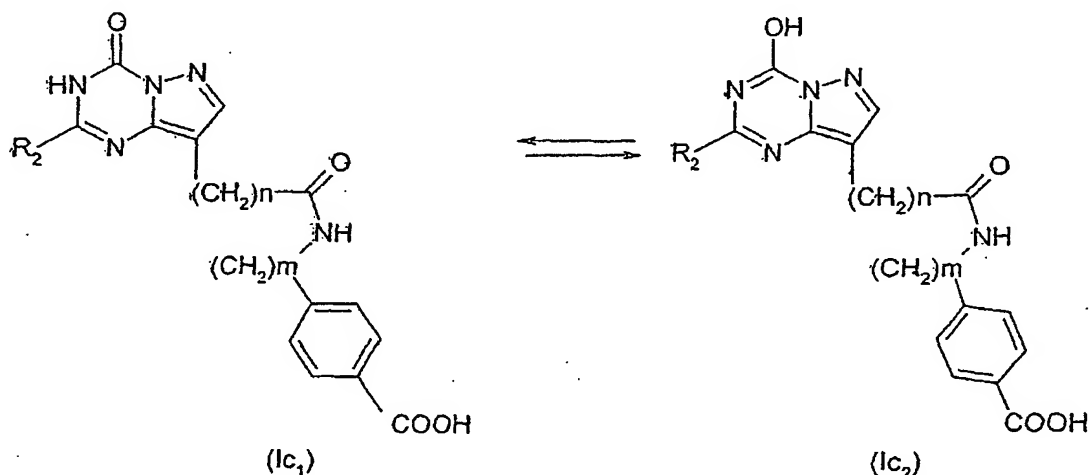
amino)pyrazolo[1,5-a]-1,3,5-triazine, ethyl 2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine-6-carboxylate, 2-methyl-4-(*N*-methyl-*N*-phenylamino)-8-phenylpyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-(*N*-methylamino)-8-(prop-1-ynyl)pyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-(*N*-methyl-*N*-phenylamino)-8-(β -D-glycero-pentofuran-3'-ulos-1'-yl)pyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-(methylamino)pyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-[4-(*N,N*-dimethylaminophenyl)]pyrazolo[1,5-a]-1,3,5-triazine, pyrazolo[1,5-a]-1,3,5-triazin-4-one, 2-methylpyrazolo[1,5-a]-1,3,5-triazin-4-one, 2-thioxo-1,2,3,4-tetrahydropyrazolo[1,5-a]-1,3,5-triazin-4-one, 2-thiomethylpyrazolo[1,5-a]-1,3,5-triazin-4-one, 2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-[*N*-methyl-*N*-(4-nitrophenyl)amino]-8-nitropyrazolo[1,5-a]-1,3,5-triazine, 8-amino-4-[*N*-(4-aminophenyl)-*N*-methylamino]-2-methylpyrazolo[1,5-a]-1,3,5-triazine, 8-acetamido-4-[*N*-(4-acetamidophenyl)-*N*-methylamino]-2-methylpyrazolo[1,5-a]-1,3,5-triazine, 8-iodo-2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, 8-[(hydroxy)(phenyl)methyl]-2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, 8-benzyl-2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, 8-benzoyl-2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, *N,N*-diethyl-2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine-6-carboxamide, 8-benzyl-2-methylpyrazolo[1,5-a]-1,3,5-triazin-4-one and 8-benzoyl-2-methylpyrazolo[1,5-a]-1,3,5-triazin-4-one.

35. (new) A medicinal product intended to increase the secretion of one or more neurotrophic factors for treating or preventing pathologies involving neuronal degeneration comprising:

8-(1-hydroxypropyl)-2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, ethyl 2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine-6-carboxylate, 2-methyl-4-(*N*-methyl-*N*-phenylamino)-8-phenylpyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-(*N*-methylamino)-8-(prop-1-ynyl)pyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-(*N*-methyl-*N*-phenylamino)-8-(β -D-glycero-pentofuran-3'-ulos-1'-yl)pyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-(methylamino)pyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-[4-(*N,N*-dimethylaminophenyl)]pyrazolo[1,5-a]-1,3,5-triazine, pyrazolo[1,5-a]-1,3,5-triazin-4-one, 2-methylpyrazolo[1,5-a]-1,3,5-triazin-4-one, 2-thioxo-1,2,3,4-tetrahydropyrazolo[1,5-a]-1,3,5-triazin-4-one, 2-thiomethylpyrazolo[1,5-a]-1,3,5-triazin-4-one, 2-methyl-4-(*N*-methyl-*N*-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, 2-methyl-4-[*N*-methyl-*N*-(4-nitrophenyl)amino]-8-nitropyrazolo[1,5-a]-1,3,5-triazine, 8-amino-4-[*N*-(4-aminophenyl)-*N*-

methylamino]-2-methylpyrazolo[1,5-a]-1,3,5-triazine, 8-acetamido-4-[N-(4-acetamidophenyl)-N-methylamino]-2-methylpyrazolo[1,5-a]-1,3,5-triazine, 8-iodo-2-methyl-4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, 8-[(hydroxy)(phenyl)methyl]-2-methyl-4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, 8-benzyl-2-methyl-4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, 8-benzoyl-2-methyl-4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine, N,N-diethyl-2-methyl-4-(N-methyl-N-phenylamino)pyrazolo[1,5-a]-1,3,5-triazine-6-carboxamide, 8-benzyl-2-methylpyrazolo[1,5-a]-1,3,5-triazin-4-one and 8-benzoyl-2-methylpyrazolo[1,5-a]-1,3,5-triazin-4-one.

36. (new) A pharmaceutical composition according to claim 24 wherein said compound has a structure represented by formulae (Ic₁) and (Ic₂)



or its prodrugs, its bioprecursors and its pharmaceutically acceptable base or acid addition salts, wherein: R₂ represents a hydrogen atom, n = 2 and m = 0.

37. (new) A method of treating or preventing pathologies involving neuronal degeneration comprising:

administration of the compound of claim 21 or claim 29, wherein said pathology involving neuronal degeneration is aging, senility, Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, multiple sclerosis, Huntington's disease, Down's syndrome, cerebral strokes, peripheral neuropathies, retinopathies (in particular pigmentary retinitis), prion diseases (in particular spongiform encephalopathies of the Creutzfeldt-Jakob disease type), traumas (accidents to the vertebral column, compression of the optic nerve subsequent to a glaucoma, etc.), or a neuronal disorder caused by the action of chemical products and nerve lesions.

38. (new) A method for treating or preventing central or peripheral diseases in a mammal comprising administration to said mammal of a compound comprising:

administration of the compound of claim 21 or claim 29 to said mammal.

39. (new) A medicinal product for inhibiting a phosphodiesterase type 2 or 4 comprising the compound of claim 21 or claim 29.

40. (new) A method of treating a mammal comprising: administration of the medicinal product of claim 39 to said mammal, wherein said medicinal product is an antimicrobial, antiviral or anticancer medicinal product, or a medicinal product having cardiovascular effects.

41. (new) A method of treating or preventing central or peripheral diseases in a mammal comprising:

administration of an effective amount of a pharmaceutical composition including the compound of claim 21 or 29,

wherein said central or peripheral disease is an inflammatory disease, chronic obstructive bronchopathies, rhinitis, dementia, acute respiratory distress syndrome, allergies, dermatitis, psoriasis, rheumatoid arthritis, infections, viral infections, autoimmune diseases, multiple sclerosis, in particular multiple sclerosis, dyskinesias, glomerulonephritis, osteoarthritis, cancer, septic shock, AIDS, Crohn's disease, osteoporosis, rheumatoid arthritis, obesity, depression, anxiety, schizophrenia, bipolar disorder, attention deficits, fibromyalgia, Parkinson's disease and Alzheimer's disease, diabetes, amyotrophic sclerosis, multiple sclerosis, Lewy body dementias, conditions with spasms such as epilepsy, fibromyalgia, central nervous system pathologies associated with senescence, memory disorders, or psychiatric disorder.